DATE MAILED: March 26, 2004 EXPRESS MAIL NO.: EL61543

In re application of:

Cynthia B. Robinson, et al.

Application Serial No. 10/698,078

Filed: October 29, 2003

For: COMBINATION OF

DEHYDROEPIANDROSTERONE OR DEHYDROEPIANDROSTERONE-SULFATE WITH A BETA-AGONIST

BRONCHODILATOR FOR TREATMENT OF ASTHMA OR **CHRONIC OBSTRUCTIVE**

PULMONARY DISEASE

Art Unit: 1624

Examiner: Not Yet Assigned

OD TOM

Confirmation No.: 9187

Attorney's Docket No: 02486.0065.NPUS01

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents P.O. BOX 1450 Alexandria, VA 22313-1450

Sir:

Listed on accompanying Form PTO-1449 are documents that may be considered material to the examination of this application, in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98.

Where the publication date of a listed document does not provide a month of publication, the year of publication of the listed document is sufficiently earlier than the effective U.S. filing date and any foreign priority date so that the month of publication is not in issue. Applicants have listed publication dates on the attached PTO-1449 based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

Doc. #8012002-v1

This statement should not be construed as a representation that a search has been made, or that information more material to the examination of the present patent application does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith. It is further understood that the Examiner will consider information that had been cited by or submitted to the U.S. Patent and Trademark Office in a prior application relied on under 35 U.S.C. § 120. 1138 OG 37, 38 (May 19, 1992).

Applicants have checked the appropriate boxes below.

- 1. This Information Disclosure Statement is being filed within three months of the U.S. filing date OR before the mailing date of a first Office Action on the merits. No statement under 37 C.F.R. § 1.97(e) or fee is required, or
- □ 2. This Information Disclosure Statement is being filed more than three months after the U.S. filing date AND after the mailing date of the first Office Action on the merits, but before the mailing date of a Final Rejection or Notice of Allowance, or action that otherwise closes prosecution in the application, and
 - □ a. I hereby state that each item of information contained in this Information

 Disclosure Statement was cited in a communication from a foreign

 patent office in a counterpart foreign application not more than
 three months prior to the filing of this Information Disclosure

 Statement. 37 C.F.R. § 1.97(e)(1), or
 - □ b. I hereby state that no item of information in this Information Disclosure

 Statement was cited in a communication from a foreign patent
 office in a counterpart foreign application, and, to my knowledge
 after making reasonable inquiry, no item of information contained
 in this Information Disclosure Statement was known to any
 individual designated in 37 C.F.R. § 1.56(c) more than three
 months prior to the filing of this Information Disclosure Statement.

 37 C.F.R. § 1.97(e)(2), or
 - □ c. Attached is our Check No. _____ in the amount of \$ ____ in payment of the fee under 37 C.F.R. § 1.17(p).

□ 3.	This I	nformation Disclosure Statement is being filed more than three months after
		the U.S. filing date and after the mailing date of a Final Rejection or
		Notice of Allowance, but on or before payment of the Issue Fee. Attached
		is our Check No in the amount of \$ in payment of the
		fee under 37 C.F.R. § 1.17(i), and
	□ a.	I hereby state that each item of information contained in this Information
		Disclosure Statement was cited in a communication from a foreign
		patent office in a counterpart foreign application not more than
		three months prior to the filing of this Information Disclosure
		Statement. 37 C.F.R. § 1.97(e)(1), or
	□ b.	I hereby state that no item of information in this Information Disclosure
		Statement was cited in a communication from a foreign patent
		office in a counterpart foreign application, and, to my knowledge
		after making reasonable inquiry, no item of information contained
		in this Information Disclosure Statement was known to any
		individual designated in 37 C.F.R. § 1.56(c) more than three
		months prior to the filing of this Information Disclosure Statement.
		37 C.F.R. § 1.97(e)(2).
□ 4.	Relev	ance of the non-English language document(s) is discussed in the present
		specification.
□ 5.	The o	document(s) was/were cited in a corresponding foreign application. An
		English language version of the foreign search report is attached for the
		Examiner's information.
□ 6.	A cor	ncise explanation of the relevance of the non-English language document(s)
		appears below:
□ 7.	The 1	Examiner's attention is directed to co-pending U.S. Patent Application
		No, filed, which is directed to related technical
		subject matter. The identification of this U.S. Patent Application is not to
		be construed as a waiver of secrecy as to that application now or upon
		issuance of the present application as a patent. The Examiner is

- 4 - Applicant(s) Cynthia B. Robinson, et al. Appl. No. 10/698,078

respectfully requested to consider the cited application and the art cited therein during examination.

□ 8. Copies of the documents were cited by or submitted to the Office in Application No. ______, filed ______, which is relied upon for an earlier filing date under 35 U.S.C. § 120. Thus, copies of these documents are not attached. 37 C.F.R. § 1.98(d).

It is respectfully requested that the Examiner initial and return a copy of the enclosed PTO-1449, and to indicate in the official file wrapper of this patent application that the documents have been considered.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 08-3038 referencing docket number 02486.0065.NPUS01.

Respectfully submitted,

Date: March 26, 2004

Albert P. Halluin (Reg. No. 25,227) Robin C. Chiang (Reg. No. 46,619)

HOWREY SIMON ARNOLD & WHITE, LLP 301 Ravenswood Avenue Box 34 Menlo Park, CA 94025 (650) 463-8109



LIST OF REFERENCES CITED BY APPLICANT

(Use several sheets if necessary)

PTO FORM 1449

ATTY. DOCKET NO. 02486.0065.NPUS01	APPLICATION NO. 10/698,078	
APPLICANT		
Cynthia B. Robinson, et al.		
FILING DATE	GROUP	
October 29, 2003	1624	

	•		U.S. PATE	NT DOCUMENTS			
*EXAMINER		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	1.	3,994,974	Nov. 1976	Murakami et al			
	2.	4,393,066	Jul. 1983	Garrett et al.			
	3.	4,499,064	Feb. 1985	Shive			
	4.	4,575,498	Mar. 1986	Holmes et al.			
	5.	4,600,710	Jul. 1986	Liang et al.			-
•	6.	4,628,052	Dec. 1986	Peat			
	7.	4,894,219	Jan. 1990	Baker et al.			
	8.	4,920,115	Apr. 1990	Nestler et al.			
	9.	4,931,441	Jun. 1990	Lawrence			
	10.	4,985,443	Jan. 1991	Montes			
	11.	4,992,474	Feb. 1991	Skidmore et al.			
	12.	5,021,417	Jun. 1991	Prost			
	13.	5,059,595	Oct. 1991	Le Grazie			
	14.	5,077,284	Dec. 1991	Loria et al.			
	15.	5,108,363	Apr. 1992	Tuttle et al.			
	16.	5,110,810	May 1992	Eich et al.			
	17.	5,118,505	Jun. 1992	Költringer			
	18.	5,126,375	Jun. 1992	Skidmore et al.			
	19.	5,162,198	Nov. 1992	Eich et al.			
	20.	5,173,488	Dec. 1992	Haeger			
	21.	5,177,076	Jan. 1993	Nijkerk et al.			
	22.	5,225,445	Jul. 1993	Skidmore et al.			
	23.	5,234,404	Aug. 1993	Tuttle et al.			

LIST OF REFERENCES CITED BY APPLICANT

(Use several sheets if necessary)

PTO FORM 1449

ATTY. DOCKET NO. 02486.0065.NPUS01	APPLICATION NO. 10/698,078				
APPLICANT :					
Cynthia B. Robinson, et al	•				
FILING DATE	GROUP				
October 29, 2003	1624				

		-			 ·	
2	24.	5,258,385	Nov. 1993	Dodd et al.		
2	25.	5,266,312	Nov. 1993	Leung et al.		
2	26.	5,270,305	Dec. 1993	Palmer		
2	27.	5,286,252	Feb. 1994	Tuttle et al.		
2	28	5,347,005	Sep. 1994	Mueller et al		
2	29.	5,407,684	Apr. 1995	Loria et al.		
3	30.	5,407,927	Apr. 1995	Morales et al.		
3	31.	5,460,605	Oct. 1995	Tuttle et al.		
3	32.	5,489,581	Feb. 1996	Daynes et al.		
3	33.	5,527,789	Jun. 1996	Nyce		
3	34.	5,532,230	Jul. 1996	Daynes et al.		:
3	35.	5,538,734	Jul. 1996	Le Grazie		
3	36.	5,583,126	Dec. 1996	Daynes et al.		
3	37.	5,635,496	Jun. 1997	Daynes et al.	-	
3	38.	5,660,835	Aug. 1997	Nyce		
3	39.	5,684,199	Nov. 1997	Francotte		
4	10.	5,686,438	Nov. 1997	Daynes et al.		
4	1 1.	5,703,063	Dec. 1997	Chasalow, et al.		
4	12.	5,767,278	Jun. 1998	Gaeta et al.		
4	13.	5,811,418	Sep. 1998	Daynes et al.		
4	14.	5,859,000	Jan. 1999	Dowell et al.		
4	I 5.	5,861,391	Jan. 1999	Yen et al.		
4	l 6.	5,948,434	Sep. 1999	Labrie		
4	17.	6,087,351	Jul. 2000	Nyce		
4	18.	6,093,706	Jul. 2000	Zeligs		
4	19.	6,156,503	Dec. 2000	Drazen et al.		

LIST OF REFERENCES CITED BY APPLICANT

(Use several sheets if necessary)

PTO FORM 1449

ATTY. DOCKET NO. 02486.0065.NPUS01	APPLICATION NO. 10/698,078			
APPLICANT				
Cynthia B. Robinson, et al.				
FILING DATE	GROUP			
October 29, 2003	1624			

	50.	6,297,382	Oct. 2001	Scott				
	51.	6,441,181	Aug. 2002	Scott .				
	52.	6,488,027	Dec. 2002	Moulin				
	53.	2002/0042401	Apr. 2002	Ferguson et al.				
	54.	2003/0013772	Jan. 2003	Murphy et al.				
	55.	2003/0138434	Jul. 2003	Campbell et al.				
	56.	2003/0139331	Jul. 2003	Martin et al.				
	57.	2003/0216329 A1	Nov. 2003	Robinson et al.				
			FOREIGN PA	TENT DOCUMENTS				
*EXAMINER		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLA	TION
INITIAL							YES	N
	58. 🕻	WO 93/16704		PCT				
	59.	WO 96/16680		PCT				
	60.	WO 97/48367		PCT				
	61. (WO 98/03180		PCT				
	62.	WO 00/54763		PCT				
	00.6	WO 01/015745		PCT				
	63.	VVO 01/015/45						
	63.X 64. C	WO 02/069955		РСТ				
	1							
	64.	WO 02/069955		PCT				

1624

LIST OF REFERENCES CITED BY APPLICANT

(Use several sheets if necessary)

PTO FORM 1449

ATTY. DOCKET NO.	APPLICATION NO.
02486.0065.NPUS01	10/698,078
APPLICANT	
Cynthia B. Robinson, et al.	

October 29, 2003

	OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)				
68.	Araneo et al., "Dehydroepiandrosterone Reduces Progressive Dermal Ischemia Caused by Thermal Injury", J. Surg. Res. 59(2):250-62 (1995).				
69,0	Bonnett et al., "Dehydroepiandrosterone (DHEA) prevents and reverses chronic hypoxic pulmonary hypertension," PNAS 100(16):9488-93 (2003).				
70.	Budavari, The Merck Index 11 th ed., 1989, pp. 660-661, monograph 4141.				
71.¥	Coleridge et al., "Intravenous aminophylline confers no benefit in acute asthma treated with intravenous steroids and inhaled bronchodilators", Aust. N.Z. J. Med. 23:348-54 (1993).				
72.4	Dashtaki <i>et al.</i> , " Dehydroepiandrosterone and Analogs Inhibit DNA Binding of AP-1 and Airway Smooth Muscle Proliferation ¹ ," <i>J. Pharmacol. Exp. Thera.</i> 285(2):876-83 (1998).				
73_<	Dompeling <i>et al.</i> , "Treatment with Inhaled Steroids in Asthma and Chronic Bronchitis: Long Term Compliance and Inhaler Technique", <i>Family Practice</i> 9(2):161-6 (1992).				
74,	Dunn, et al., "Dehydroepiandrosterone sulphate concentrations in asthmatic patients: pilot study," N.Z. J. Med. 97(768):805-8 (1984).				
75.	Duplantier, et al., Novel pharmacological approaches to the treatment of asthma: status and potential of therapeutic classes", DDT 1(5):199-207 (1996)				
76: <u>X</u>	Dworski et al., "Conspectus: Inhaled Steroids in Asthma", Comprehensive Therapy, 18:3 (1992).				
777	Fehér et al., "Adrenocortical Function in Bronchial Asthma", Acta Medica Hungarica 40(2-3):125-32 (1983).				
78.	Fehér, et al., " Dehydroepiandrosterone Therapy of Patients with Corticosteroid Dependent Bronchial Asthma," Natl. Institute of Rheumatism and Physiotherapy, in XIII Congress of the European Academy of Allergology and Clinical Immunology, eds. (Saba, et al., Debrecen Hungary (1986).				
79.	Hampl et al., "Dehydroepiandrosterone sulphate reduces chronic hypoxic pulmonary hypertension in rats," J. Eur. Respir. 21:862-5 (2003).				
80	Holzmann et al., "Therapy of Psoriasis with Dehydroepiandrosterone-Enanthate. II. Intramuscular Depot Application of 300 mg", Arch. Dermatol. Forsch. 247(1):23-8 (1973) (German with English Abstract).				
81:7	Hummel <i>et al.</i> , "Comparison of oral-steroid sparing by high-dose and low-dose inhaled steroid in maintenance treatment of severe asthma", <i>The Lancet</i> , 340(8834/8835):1483-7 (1992).				
82.	Itagaki <i>et al.</i> , "Effect of Cortisol on the Release of Human Decidual", <i>Caplus</i> , 114875 (1991) (Japanese with English Abstract).				

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

NO

LIST OF REFERENCES CITED BY APPLICANT (Use several sheets if necessary) PTO FORM 1449 APPLICANT Cynthia B. Robinson, et al. FILING DATE October 29, 2003 APPLICATION NO. 10/698,078 APPLICATION NO. 10/698,078

83. •£	Koó et al., "Our experiences with Dehydroepiandrosterone Therapy in Steroid-Dependent Intrinsic Bronchical Asthma", <i>Orvosi Hetilap</i> 128(38):1995-7 (1987) (Hungarian).
84. X	Koó et al., " Our experiences with Dehydroepiandrosterone Therapy in Steroid-Dependent Intrinsic Bronchical Asthma ", Orvosi Hetilap 128(38):1995-7 (1987) (English translation).
85,	Lejeune, "Pathogenesis of Mental Impairment in Trisomy 21", Annales de Génétique, 92:27643 (1996) (French with English Abstract).
86.	Mileva et al., "Androstenedione, DHEA sulfate, cortisol, aldosterone and testosterone in bronchial asthma patients", 07608054 (1990) (Russian with English Abstract).
87. -}	Nakagawa, et al., "The Properties of Water of Crystallization of Sodium Prasterone Sulfate," Chem. Pharm. Bull 29(5):1466-9 (1981)
88.	Nakagawa, et al., "The Grinding and Drying on the Solid State Stability of Sodium Prasterone Sulfate," Chem. Pharm. Bull 30(1):242-8 (1982)
89.	Pashko et al., "Inhibition of 7,12-dimethylbenz(a)anthracene-induced Skin Papillomas and Carcinomas by Dehydroepiandrosterone and 3-beta-methylandrost-5-en-17-one in mice", Cancer Res. 45(1):164-6 (1985).
90. X	Peeters et al., "Differences in Purine Metabolism in Patients with Down's Syndrome", J. Intellect. Diabil. Res. 37:471 (1993). Abstract.
91	Reed, "Aerosol Steroids as Primary Treatment of Mild Asthma", New England J. Med., 325(6):425-6 (1991).
92.	Rowe et al., "Effectiveness of Steroid Therapy in Acute Exacerbations of Asthma: A Meta-analysis", Amer. J. Emergency Med., 10(4):301-10 (1992).
 93.	Sasaki et al., "Cervical Ripening with Dehydroepiandrosterone Sulphate", Br. J. Obstet. Gynaecol. 89(3):195-8, (1982).
94.	Sciarra et al., "Aerosols", Remington's Pharmaceutical Sciences, 18 th ed. (1990), Eds. Gennaro et al., pp. 1873-5 and 1694-1712.
95	Sharma et al., "Screening of potential chemopreventive agents using biochemical markers of carcinogenesis", Cancer Res. 54(22):5848-55 (1994).
96.	Shomali, "The Use of Anti-Aging Hormones. Melatonin. Growth Hormone, Testosterone, and Dehydroepiandrosterone: Consumer Enthusiasm for Unproven Therapies", <i>Md. Med. J.</i> 46(4):181-6 (1997).
97.	Sonka et al., "Gout and Dehydroepiandrosterone: 3. DHEA Administration", Endokrynologia Polska 24(3):209-18 (1973).
	no recieved DOC

LIST OF REFERENCES CITED BY APPLICANT (Use several sheets if necessary)	ATTY. DOCKET NO. 02486.0065.NPUS01	APPLICATION NO. 10/698,078	
PTO FORM 1449	APPLICANT		
	Cynthia B. Robinson, et a	<i>I</i>	
·	FILING DATE	GROUP	
	October 29, 2003	1624	

98.	Sur et al., "Double-blind trial pyroxidine (vitamin B6) in the treatment of steroid-dependent asthma", Ann. Allergy, 70:147-52 (1993).
99.	Schwartz et al., "Inhibition of 7,12-dimethylbenz[a]anthracene- and urethan-induced lung tumor formation in A/J mice by long-term treatment with dehydroepiandrosterone," Carcinogenesis 2(12):1335-7 (1981)
100.	Van de Graaf et al., "Respiratory Membrane Permeability and Bronchial Hyperreactivity in Patients with Stable Asthma: Effects of Therapy with Inhaled Steroids", Bronchial Asthma and Respiratory Membrane Permeability 143:362-8 (1991).
101%	Van Vollenhoven et al., "Dehydroepiandrosterone in SLE. Results of a Double-Blind, Placebo-Controlled, Randomized Clinical Trial.", Arthritis Rheum. 38(12): 1826-31 (1995).
102.	Wolkowitz et al., "Dehydroepiandrosterone Treatment of Depression", Biol. Psychiatry 41(3):311-8. (1997).

No recieved Doc